

VIABILITY OF ABC IN PRICING DECISION: A CASE OF SME IN INDIA

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ABSTRACT

Purpose: In this competitive environment, Indian SMEs are under pressure to develop number of strategies for achieving cost savings, market share and operational efficiency. It takes of well-established supply chain strategies and enhanced costing system. This paper will be an attempt to highlight the framework of costing system which an Indian SME can include in its strategic process. It will study the current costing system and if, identify the drawbacks. The study will attempt to suggest the measures dealing with the application of ABC in a SME.

Design/Methodology/Approach: The paper will provide an overview of literature on ABC and importance of implementation in a SME. A case study on Saksham, a training consultancy firm, was taken on implementation of ABC and highlighting the significant benefits drive by the SME on strategic decision making process in setting price for the product & service.

Findings: If time and money is invested by the SMEs, they can derive fruitful benefits from ABC system. The case has demonstrated opportunities to improve profitability of a SME through better decision in terms of operational and functional performance.

Research Limitations: There is ample opportunity for further research in other business activities of a SME.

Originality/Value: With the existing costing tool, ABC examines its use in Indian SME having little exposure to its benefits.

KEYWORDS: Activity Based Costing, SME, Educational Consultancy, Cost Competitiveness, Traditional Costing

INTRODUCTION

All forms of businesses, a manager is pressurized to control cost as well as hunt for differentiated products and services from those of their competitors. As argued by Porter (1985), 'competitive advantage.....stems from the many discrete activities a firm performs in designing, producing, and marketing, delivering and supporting its product. Each of these activities can contribute to a firms relative cost position and create a basis for differentiation.' Thus, to attain the competitive advantage, manager need to understand the value chain, i.e. understanding the links between various activities within the firm (Jones & Tilley, 2003). This provides a logical way of 'disaggregating' the firm into its relevant units so that managers are in better position to understand the nature of costs and potential sources of differentiation. Local to global competition has led all business forms towards a transformed high commitment level of competitiveness and excellence in their operations. Volatility, dynamism and competitive markets are the key characteristics of an economic environment in which SME has a threat to survive (O'regan & Ghobadian, 2004; Hernandez, Dewhurst, Pritchard, &

Barber, 2004). Lefebvre and Lefebvre (1993), using principal components analysis (PCA) identified three competitiveness factors, viz, quality, diversity and cost, which accounted 72.9% of total explained variance.

Highlighting the importance of cost in competitive environment for SMEs, many scholars are still concerned whether businesses are using adequate accounting method, more specifically activity based costing (Kaplan, 2006; Hopper & Major, 2007). Dansoh (2005), however, view that SMEs can survive such climate by engaging in dynamic processes in all aspects of business, including activity based costing. Empirical study conducted by Dearman and Shields (2001) also concluded that even without using any methods which are considered theoretically accurate, managers possessing some knowledge of ABC can achieve correct management decisions. This knowledge allows them to distinguish that some of the information provided by methods based on volume cost sharing may be distorted. This demonstrates that improving management practices in SMEs is an important element in enhancing national productivity. Furthermore, regardless of owner's motivation, a commitment to introduce new product and service, innovation through modification in existing product and process design to reduce cost and improve quality. This will boost the SME's competitive position in long run. Thus, the study is valuable to Indian SMEs in parting the knowledge of ABC techniques and processes, which can result in cost saving, growth and competitiveness. This can assist managers in delivering desired results. In nutshell, this study combined with previous researches, serves as a tool for SMEs to improve the effectiveness of costing systems and their sustainability. The primary objective of the paper is to introduce rationale and mechanics behind cost effective technique, ABC and to explore the advantages of ABC vis-à-vis traditional costing using case study approach.

Cost: Competitive Edge

In the work of Kay (1993) and Wickham (2001), they have analyzed competitive advantage in SMEs on four point of 'strategic contact' – cost, knowledge, relationships and structure, as depicted in table 1.

Table 1

Factor	Potential Competitive Advantage
Costs	Importance of price to customers, suppliers, distributors; extent of demand elasticity
Knowledge	Stage of industry life-cycle; implied or codified knowledge; common or localized knowledge
Relationships	Building links with customers, suppliers, distributors; position in network and relative power
Structure	Creating appropriate organizational structures; ability to respond to market signals; leadership styles (delegation or decentralization)

Thus, to sustain growth in this competitive environment, cost and quality of product has influence on the competitive strategy of an enterprise. The cost of product can be bargain by increasing volume of production or by reducing the production cost. Increasing recognition of cost competition has forced companies to develop efficient technique for the control of manufacturing facilities and material and hence increasing productivity and quality. For the past few years, considerable emphasis has been placed on the cost. Manufacturing cost of a product can be reduced by:

- Minimizing the number of components used in the product;
- Designing components for ease of handling and assembly; and
- Selecting the best material/process combination for economic manufacture of the individual parts.

The major challenge face by SMEs is collecting the cost information, especially reliable cost information needed for tactical and strategic planning and decision making which are critical to success. The level of technology enabled office and accounting processes is not as advanced as those in big organizations. Majorly they work on traditional system, involving manual book keeping driving primary purpose of external financial reporting. This made inevitable inaccuracy of product cost.

Cost Allocation

Accounting in its traditional forms is designed primary to meet the needs of investors, lenders, and income tax authorities. These kinds of systems are called absorption costing. It is based on the assumption that as a good is produced, it absorbs the costs of the direct materials that become a part of it, that is, the labor that's used to make it, and the overhead costs associated with its production. These expenses are all assumed to be necessary for the production process; hence such expenses must be absorbed. However the problem with this is that the product cost only includes the cost of manufacturing and not those of marketing and distribution. Thus is an entrepreneur or small business owner were to ask the accountant for the cost per unit of each type of product made, the accountants answer would be in terms of absorption costing and would only include manufacturing costs. This would be misleading in case of high marketing and distribution costs. The most common way in which this problem has been addressed by companies is by allocating fixed marketing and distribution costs to products based on the relative sales.

Distortions Caused

Absorption costing is not very efficient as the way the manufacturing expenses get attached to the product causes distortion in the product costing. Direct materials are variable with respect to number the units of goods produced while factory overhead is mostly is fixed. This process does not differentiate between fixed and variable cost, thus, causes the product distortion of manufacturing overhead. This can cause huge difficulties for small businesses to run efficiently.

Under this method, products are under or over cost depending on level of resources consumed. Products consuming high level of resources will have low cost as compare to products consuming low level of resources will have high cost. Consequently, low cost products would have high level of unit sales misleading the management as market leader of the product and to increase advertisement expense. This will increase the sale of unprofitable products. On the other hand, with high cost product would result losing sales of a profitable product.

In a nutshell, in traditional costing, there is no focus on cost source and consumed. Usually, there is little understanding into the reasons of variances. The methodology is accounting oriented, inaccurate, and not flexible. With the significant changes in production technology, traditional costing distorts product costs.

In one of the research paper by Cooper (1987), he argues that cost accounting has experienced few innovations. With the shift from labour intense production to machine technology, traditional costing was not able to overcome the limitations of existing cost design. The product costs produced by allocations based on direct labour, materials purchased, or unit produced are distorting because products do not consume most support resources in proportion to their production volume.

ABC: An Innovation in Costing System

As part of SMEs' strategies to maintain and enhance market competitiveness, both regional and global level, they incorporate innovative strategies in production technology. Organizational lag theory defines technical innovations coexist with consistent improvement in the administrative systems of organizations, of which the management accounting is apart. This parallel innovation in technology brought new developments in management accounting of which ACTIVITY BASED COSTING is one. Introduced by Cooper and Kaplan (1998), ABC as a tool for assigning overheads to products and calculating product cost, provided solution to the drawbacks of traditional costing. ABC, as in many literatures mention, provides information on value added & non-value added activities for both strategic and operational decision on profitable product, market segments, customer profitability and improvising process. This motivated to introduce ABC for price quality and performance for being competitive in the market.

There have been literature and cases available that have described and analyzed ABC, demonstrating its application in manufacturing and service firms. Cooper (1988) demonstrated under his research, the firm facing high competition and have complex manufacturing environment will generate more beneficial from the introduction of ABC in form of precise cost information. He established with the support of case studies of Siemens Electric Motor Works, John Deere Component Works, and Schrader Bellows that the 'management objectives' and 'diversity of product mix' urged the need of ABC in complex and competitive environment.

Most conducted surveys have shown a steady increase in adopting ABC as costing tool. A survey by Innes and Mitchell (1995), found 19.5% of respondents in UK have adopted and 27.1% are looking forward. In US based survey conducted by Foster and Swanson (1997), all respondents (132) were using ABC. In a survey of 60 large and medium sized manufacturing companies in India piloted by Joshi (2001) have found 20% have adopted ABC, 13% for activity based management, and 7% for activity based budgeting. Anand et al (2005) has conducted a survey based on BT 500 corporates of India, found that corporates have got benefited with ABC in capturing accurate cost and profit information as compare with non-ABC user firms. These surveys have also note about some practical problems, such as lack of top management support, lack of adequate resources, inadequate technology, lack of training among managers, impact on organizational structure, time consuming task in identifying and selecting cost drives, to point some of the challenges face by organizations.

In contrast, in SMEs' adoption of ABC has been slower. Though nothing much have been evident of empirical research that has identified application of ABC in SMEs (French, 2009); few papers stated implementation of ABC as successful tool in cost-efficiency, decision making and performance (Baxendale, 2001; Gunasekaran, H. B. Marri, & R. J. Grieve, Activity Based Costing in Small and Medium Enterprises, 1999) but major factors contributing towards ABC failure in SMEs are high implementation cost, lack of training facilities, lack of awareness among entrepreneurs and resistance to change, to name some of the challenges face by them as drawn from the case investigated as well (Anthony & V. Govindarajan, 2001; Chenhall, 2003; Laitinen, 2001; Simons, 2000; Rundora & Selesho, 2014). In a survey conducted by Drury et al (1993), highlight that SMEs apply simplistic techniques of reporting, and use of sophisticated techniques such as ABC, lean management, sensitivity analysis, are limited to large organizations. In the same line, Gunasekaran et al (1999) survey have also stated limited application of ABC inspite of its importance in improvising the performance of a SME. In a survey conducted by Martha et al (2014), they found 7.22% impact of ABC/ABM in Mexican SMEs. In spite of accounts and costing knowledge, 66% of Mexican SMEs do not have knowledge about ABC system.

Only 12% of the enterprises, who have adopted ABC, use this tool for information to facilitate their long term goals. These researches demonstrate the potential opportunities of application of ABC system in Indian SMEs. In the following section, a SME case is presented to motivate practitioners in instigating ABC system in their enterprise. The case overlook the issues in determining the profitability for some customers with the support of ABC system which will assist the managers to determine profitable customers and emphasis them in improvising profitability.

Case Study

Saksham, located in Ghaziabad, India, is a small educational consultancy firm offering two basic training programs based on duration, 2 days training program and 5 days training program in the field of management. For deploying the course, the enterprise hires freelance facilitators as per the course requirement, take premises & projectors on rent to conduct the program. Due to the fierce competition, the enterprise had to compete with potential competitors by lowering their fees and raising their competitive capability through cost control without compromising the quality of deliverables. At the end of the year, the owner investigates cost incurred over the past 12 months to determine fees for the coming year. The enterprise strategy to fix program fees is based on cost plus approach. They add sufficient amount of profit margin on the cost of resources consumed on each program. Currently the profit margin is 15% on cost. Table 2 shows cost computation of 2 day and 5 day training program.

Table 2

	2 Days Training Program	5 Days Training Program
Number of courses	30	50
Average number of participants	50	25
Total annual cost	Rs 725,000	
Cost per day	Rs 2339	
Cost per course	Rs 4678	Rs 11695

With the above calculation, the owner was convinced that calculated fees under the existing computation system deviated from the actual amounts and, therefore, he failed to receive accurate unit cost and useful information for decision making. After studying the existing system, the owner decided to review its product cost behavior as each program, with its unique features, requires different set and proportion of enterprise's resources. Being in the competition, the enterprise needs to continually assess the economics of their product line variety and make decision on pricing. These decisions are based on cost and profitability, so the biggest challenge is to compute cost correctly. In this process, the researcher has investigated the pricing strategy using ABC approach. After studying their accounting system they identified following value added activities with cost driver and cost related to activities based on model proposed by Roztocki (1999). Then comparison was done between cost information under ABC and the existing system and analyzed implementation performance, shown in table 3.

Table 3

Activity	Activity Cost	Activity Driver	Quantity of Activity Driver
Advertisement of course	100,000	Number of courses	80
Enroll participants	15,000	Number of participants	2750
Facilitators' fee	400,000	Number of days	310
Premises on rent	38,000	Number of days	310
Projector rent	55,000	Number of days	310
Handout designing & printing	20,000	Number of participants	2750
Participants refreshment	100,000	Number of persons-day	9250
Total Cost	725,000		

Based on this, the researcher investigated quantity of activity driver for particular program and computed activity cost for the program highlighted by the table 4 below.

Table 4

Two Day Program			
Activity	Cost Per Unit of Activity Driver	Quantity of Activity Driver	Activity Cost
Advertisement of course	Rs 1250 per course	1 course	1250
Enroll participants	Rs 5.45 per participant	50 participants	272.5
Facilitators' fee	Rs 1290 per day	2 days	2580
Premises on rent	Rs 113 per day	2 days	226
Projector rent	Rs 177 per day	2 days	354
Handout designing & printing	Rs 7.27 per participant	50 participants	363.5
Participants refreshment	Rs 10.8 per participant per day	100 persons-day	1080
Total Cost			6126
Five Day Program			
Activity	Cost Per Unit of Activity Driver	Quantity of Activity Driver	Activity Cost
Advertisement of course	Rs 1250 per course	1 course	1250
Enroll participants	Rs 5.45 per participant	25 participants	136.25
Facilitators' fee	Rs 1290 per day	5 days	6450
Premises on rent	Rs 113 per day	5 days	565
Projector rent	Rs 177 per day	5 days	885
Handout designing & printing	Rs 7.27 per participant	25 participants	181.75
Participants refreshment	Rs 10.8 per participant per day	125 persons-day	1350
Total Cost			10818

$$\text{Cost under ABC} = 1250x + (5.45 + 7.27)y + (1290 + 113 + 177)z + 10.8yz$$

Where, x = Number of course

y = Number of participants in a workshop

z = Number of workshop days

As claimed by various researches application of ABC enhance the value on pricing decisions and profitability performance by providing better price differentiation among products and services. This has been supported by the study done. From the table 5 below, it is evident that the owner was charging 2 days program at a low cost whereas 5 day program charged at high. It is worth noting that cost of presenters, premises and projector can be consider for average cost but other costs like cost of advertisement, refreshment, handouts are based on each course and participants respectively.

Table 5

	Existing Cost System	ABC System
2 day workshop	4,678	11,695
5 day workshop	6,126	10,818

Margin percentage can vary on the amount of capital investment, alternative investment opportunities available, etc, considering determining mark up by the enterprise. The enterprise may adopt the cost computed with ABC approach to determine program fee or may slightly vary depending on the competitors and participants' behavior. With the cost ascertain by ABC, the enterprise can evaluate their profitability and may also determine the amount of discount need to

offer to participants. It should be noted that pricing is not based on cost alone, the enterprise need to consider factors affecting price such as demand, competitors' behavior, brand image and other factors.

CONCLUSIONS

The study concludes that ABC is not confined to large organizations but may give an edge to the small enterprises whether in manufacturing or service industry. To sustain in competitive environment, enterprises need accurate cost information to support and justify their decision making process. Being a small venture, it takes less time to set up ABC system. It was observed that small enterprises can develop ABC model and can create an informative environment. The enterprise outlook towards ABC will enable them to create a model to measure cost in accordance. This will give them flexibility in a changing competitive environment, and permits to analyze non-value addition activities.

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